



## Summary of communications/meetings with UEC

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### Summary of EPA and UEC meetings and communications

Date	Participants	Discussion topics
<b>Background Prior to Meetings</b>		
November 14, 2008	EPA and TCEQ	EPA expressed need for the two-phase ground water modeling for Aquifer Exemptions (AE)
May 24, 2011	TCEQ	TCEQ submitted AE for Goliad Formation
July 1, 2011	EPA (Flores) letter to TCEQ (Jablonski)	EPA initial review indicates GW modeling needed and application incomplete
August 8, 2011	EPA Letter to TCEQ	
August 23, 2011	TCEQ (Vickery) letter to EPA (Flores)	Request for EPA to process AE without modeling
May 16, 2012	EPA (Honker) letter to TCEQ (Covar)	Region sent a letter to TCEQ reaffirming the Region's view that the exemption does not meet the current use criterion in the federal regulations, and identified ground water modeling as a possible method to demonstrate no current use.
May 24, 2012	TCEQ Letter to EPA	TCEQ declines to provide modeling and requests EPA to make a decision on the AE.
<b>EPA and UEC specific meetings/correspondence</b>		
December 2, 2011	EPA meeting with UEC	EPA expresses concerns on the many drinking water wells surrounding the proposed mine. Request for modeling to assure protection of current drinking water wells. UEC introduced computer modeling used during contested TCEQ proceedings. EPA stated this modeling didn't address current use.
January 18, 2012,	EPA meeting with UEC	UEC discussed using a simplistic model. R6 indicated that the model was deficient as no site specific data inputs. R6 provided a definition of current use. UEC disagrees with current use definition. R6 offered to provide UEC with model input parameters for a two phase modeling approach.
June 25, 2012	EPA meets with TCEQ and UEC in Austin	<ul style="list-style-type: none"> <li>- UEC expressed a desire to re-draw the boundaries of the proposed exemption to reduce the number of wells within ¼ mile.</li> <li>- UEC stated they could provide data to show that the four sands of the Goliad Aquifer were hydrologically isolated in the area of the proposed exemption.</li> <li>- UEC agreed to provide information that groundwater flow in the proposed exempted area was not in the direction of nearby wells.</li> </ul>
July 9, 2012	Call from B. Honker (EPA) to Andy Barrett (UEC)	<p>EPA request for the following information based on Austin meeting</p> <ul style="list-style-type: none"> <li>- Pump test or other data to support UEC's contention that the four sands are not hydrologically connected.</li> <li>- The revised map shows groundwater flow to the east. This is inconsistent with our earlier understanding, so we need the data/rationale which supports this assertion.</li> <li>- A capture zone rationale for why any of the wells still within the 1/4 mile are not drawing water from the proposed exempted area.</li> </ul>

July 11, 2012	Call from Ann Codrington (OGWDW) to Harry Anthony (UEC).	Discussion of data that UEC agreed to provide based on call from July 10, 2012.
July 12 and 13, 2012	UEC emails EPA	UEC submits 1) cross sections from Mine Permit application, 2) pump tests for Production Area Authorization application, and 3) groundwater model information.
July 24, 2012	Call with EPA, TCEQ, and UEC	EPA indicated that UEC needed to supply the background data and calculations that were used to develop the rationale and justification regarding isolation of the ore sands and ground water flow direction. UEC agreed to supply a CD with this information by July 27 <sup>th</sup> .
July 27, 2012	UEC email	UEC submits additional data
August 16, 2012	EPA meeting with UEC, TCEQ, Goliad County Groundwater Conservation District and Goliad County	Discussion on 1) isolation of sands via pump tests data, 2) exploratory bore holes serving as potential conduits, and 3) ground water flow direction. EPA indicates that UEC's pump tests are extrapolated to include down gradient wells to show isolation are not sufficient as distant is over 1000 feet and considering the fault and test holes that are currently open. Goliad County points to data in the UEC application that shows ground water flows east to west in certain locations (UEC indicated this was an error in their application). UEC agrees to provide 1) documentation that bore holes closed via RRC, and 2) additional pump tests information.
August 21, 2012	EPA conference call with UEC	UEC discussed Dr. Galloway's expert testimony, which they indicated proves isolation along the faults. UEC indicated that they could not provide off-site data due to site access issues.
August 22, 2012	UEC sent CD via mail	CD that lists plugged wells via Railroad Commission affidavit.